

# **Juncea**

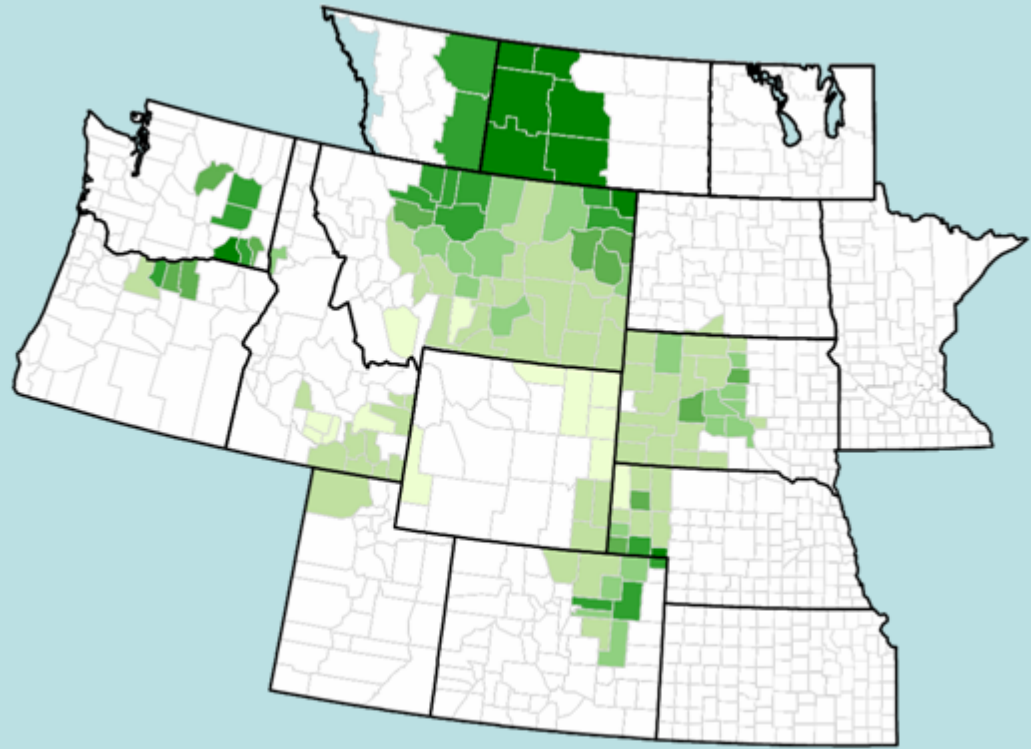
**An oil-seed crop for the  
northern high plains**

# Juncea classification

- Recognized as canola by the US Canola Assoc. and the Canola Council of Canada
- Human food oil consumption approval and meal livestock feed approval in both Canada and the US
- EPA recognizes juncea as a mustard for pesticide regulations



# Juncea adaptation



- Developed by Pioneer Hi-Bred to expand canola acres
- Worldwide demand increasing for canola oil products
- Customers demands

# Juncea advantages over Canola

- Larger window for straight-cut harvest
  - Low pod shatter potential
- Heat and drought stress tolerance
- Frost tolerance?

# Juncea advantages over Mustard

- Oil quality
- Yield
- Markets





# Pros

- Targeted breeding program (12 yrs)
- Heat and drought stress tolerance improved over traditional canola napus
- Harvest management – straight-cut
- Higher stubble height vs other crops
- Crop rotation benefits
- Labeled herbicide options
- Crop Insurance
- Established canola markets
- Yellow meal color



# Pitfalls

- Limited herbicide options
- Oil content
- Fertilizer requirements and management
- Consistency under adverse environments
- Saskatchewan Wheat Pool (Ag Canada)  
juncea - OP

# Juncea Agronomics

- Planting Date – early to mid April
- Planting Rate – 4.5 to 5.0 lbs seed/ac
- Planting Depth:  $\sim 1\frac{1}{2}$ "
- Fertilizer program identical to canola
  - OR wheat with  $\sim 15$ -20 lbs/ac Sulfur
- Straight-cut combine



# Juncea Performance

- 45J10 - 1<sup>st</sup> commercial juncea hybrid released by Pioneer Hi-Bred
- Selling in Canada and US for '08
- '07 sites
  - 9 in southern Saskatchewan
  - 13 in US
    - 7 in western N.Dakota
    - 6 in northeastern Montana



# Juncea Performance

- Saskatchewan
  - Average canola yields ~1350–1700 lbs/ac
  - 9 juncea sites were +/- 100-150 lbs/ac
- Western N.Dakota
  - Average canola yields 1200–1500 lbs/ac
  - 7 juncea sites averaged 0 to -150 lbs/ac
- Montana (Sheridan, Roosevelt, Daniels)
  - 350-700 lbs/ac
- Oil Content -- 36 to 42%

# Juncea's future

- Excited about high demands
  - Commodities
  - Food oil & BioFuel
- Opportunities
  - Conduct further research
  - Release new juncea hybrids
  - Extension
- CL & RR Juncea



